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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/967,281	09/27/2001	Ching-Wei Chang	SLA 1009	6798

7590 10/04/2005

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EXAMINER

BRINICH, STEPHEN M

ART UNIT	PAPER NUMBER
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2624

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/967,281	Applicant(s) CHANG, CHING-WEI	
	Examiner Stephen M. Brinich	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-6,8-17 and 20-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-2 4-6 8-17 20-26 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| ✓ 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| ✓ 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/27/01</u> . | 6) <input type="checkbox"/> Other: ____. |

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DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8 depends from cancelled claim 7.

Claim Rejections - 35 USC § 102

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1-2, 6, 8-10, 16-17, & 20-24, insofar as claim 8 is understood, are rejected under 35 U.S.C. 102(e) as being anticipated by Venable (US 6480626).

Re claims 1-2, 6, 16-17, & 22-24, Venable discloses (column 3, line 36 - column 4, line 23) a printer arrangement for processing and halftone rendering image data pixels in which a set of additional information bit tags each having one of two states is attached to each pixel. The pixel data is then accessed and subjected to halftone rendering in accordance with

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one of these tags and colored in black or other colors in accordance with another of these tags.

Re claim 8, the "ED" option for a halftone tag (column 3, line 53) would be understood by one of ordinary skill in the art to refer to error diffusion halftoning.

Re claims 9 & 21, Venable further discloses (column 3, lines 49-50) tags distinguishing text and edge pixels.

Re claim 10, Venable further discloses (column 3, line 53) that up to four different tags may be assigned to indicate particular halftone processings.

Re claim 20, Venable further discloses (column 3, lines 49-55) that the additional information bit tags may comprise eight or more bits.

Claim Rejections - 35 USC § 103

5. Claims 4-5, 11-15, & 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Venable in view of Harrington et al.

Re claims 4-5, 11, 15, & 25-26, Venable discloses the elements noted above, but does not disclose the use of a software implementation of the disclosed method (which would inherently constitute a "printer driver", as it would control a printing device) on a computer or the use of a graphical device interface for deriving the source image data.

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Harrington et al discloses (Abstract, Figure 2) the implementation of a halftone printing arrangement in which a computer provides a source image and transmits it to a computer along with instructions for rendering the image as a printer output.

Venable and Harrington et al are combinable because they are from the field of halftone image rendering.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to implement the Jacobs arrangement for halftone image rendering in a computer with connected printer as shown in Harrington et al.

The suggestion/motivation for doing so would have been to enable a computer printer to use the pixel-selective halftone of Venable, thus allowing each region of an image rendered by a computer printer to be reproduced according to the optimum scheme for that region (see Jacobs column 4, lines 4-11).

Therefore, it would have been obvious to combine Venable with Harrington et al to obtain the invention as specified in claims 4-5, 11, & 15.

Re claim 12, Venable further discloses (column 3, lines 49-50) distinguishing text and edge pixels.

Re claims 13-14, Venable further discloses (column 6, lines 18-24) describes the pixel data as digital data, which by

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standard definition consists of bits arranged from most to least significant (all of which are coupled to the tag data associated with that pixel data).

Conclusion

6. Any inquiry concerning the contents of this communication or earlier communications from the examiner should be directed to Stephen M. Brinich at 571-272-7430.

Any inquiry relating to the status of this application or proceeding or any inquiry of a general nature concerning application processing should be directed to the Tech Center 2600 Customer Service center at 571-272-2600 or to the USPTO Contact Center at 800-786-9199 or 703-308-4357.

The examiner can normally be reached on weekdays 7:00-4:30, alternate Fridays off.

If attempts to contact the examiner and the Customer Service Center are unsuccessful, supervisor David Moore can be contacted at 571-272-7437.

Faxes pertaining to this application should be directed to the Tech Center 2600 official fax number, which is 571-273-8300 (as of July 15, 2005).

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Hand-carried correspondence may be delivered to the
Customer Service Window, located at the Randolph Building, 401
Dulany Street, Alexandria, VA 22314.

A handwritten signature in black ink that reads "Stephen Brinich". The signature is written in a cursive style with a large, stylized 'S' and 'B'.

Stephen M Brinich

Examiner

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smb

September 30, 2005